



# UNITED STATES PATENT AND TRADEMARK OFFICE

fw  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,355	06/23/2003	Leonard N. Schiff	010129	1702
23696	7590	10/05/2005	EXAMINER	
Qualcomm, NC 5775 Morehouse Drive San Diego, CA 92121			ORGAD, EDAN	
		ART UNIT		PAPER NUMBER
				2684

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/602,355	SCHIFF, LEONARD N.	
	Examiner Edan Orgad	Art Unit 2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 7/19/05.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-32 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 26,27 and 32 is/are allowed.  
 6) Claim(s) 1-3,5,8,12-14,19,20,23-25,28 and 29 is/are rejected.  
 7) Claim(s) 4,6,7,9-11,15-18,21,22,30,31 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, filed 7/19/05, with respect to claims 1-3, 5, 8, 12-14, 19, 20, 23-25, 28 and 29 have been fully considered and are persuasive.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 8, 12-14, 16, 19, 20, 23-25, 28, and 29 rejected under 35 U.S.C. 102(b) as being anticipated by Tailor et al. (European Patent Application No. 0 854,590).

Regarding claims 1 and 12, Tailor teaches of a method and apparatus, comprising: receiving a filter parameter at a satellite in orbit (col. 3, line 55- col. 4, line 30); receiving an input signal at the satellite (col. 3, line 55- col. 4, line 30); and programming a filter in the satellite to separate a plurality of sub-signals from the input signal based on the filter parameter (col. 3, line 55- col. 4, line 30).

Regarding claims 2 and 13, Tailor teaches wherein the filter parameter comprises at least one of a high frequency limit for the input signal, a low frequency limit for the input signal, a median frequency to separate a first sub-signal from a second sub-signal within the plurality of sub-signals, and a set of frequency boundaries for each of the plurality of sub-signals (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43).

Regarding claims 3 and 14, Tailor teaches of further comprising: filtering the input signal into the plurality of sub-signals as programmed based on the filter parameter (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43); translating the plurality of sub-signals into an output signal (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43); and transmitting the output signal from the satellite (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43).

Regarding claims 5 and 16, Tailor teaches of comprising: applying different gain amounts to selected ones of the plurality of sub-signals (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43).

Regarding claims 8 and 19, Tailor teaches of wherein the input signal comprises uplinks from a plurality of beams and the output signal comprises downlinks to the plurality of beams (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43) and wherein translating the plurality of sub-signals into the output signal comprises: switching the plurality of sub-signals from particular uplinks to particular downlinks (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43).

Regarding claim 20, Tailor teaches of wherein the switch matrix assigns at least one of the plurality of sub-signals received from an uplink corresponding to a particular beam to a downlink corresponding to a different beam (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43).

Regarding claim 23, Tailor teaches of a communications device, comprising: a receiver and a transmitter, coupled to the other, and each adapted for use in a high altitude environment (col. 3, line 55- col. 4, line 30); and control circuitry, coupled to the receiver and transmitter, adapted to control operating characteristics of the receiver and transmitter based, at least in part, upon one or more instructions for allocating channel capacity between an uplink and a downlink (col. 3, line 55- col. 4, line 30).

Regarding claim 24, Tailor teaches of comprising circuitry for monitoring the amount of forward and return traffic processed by the communications device (col. 3, line 55- col. 4, line 30).

Regarding claim 25, Tailor teaches of further comprising circuitry for generating instructions for allocating channel capacity between an uplink and a downlink based, at least in part, on the amount of forward and return traffic processed by the communications device (col. 4, lines 31-31 & col. 6, line 55- col. 7, line 43).

Regarding claim 28, Tailor teaches of apparatus, comprising: means for receiving a filter parameter at a satellite in orbit (col. 3, line 55- col. 4, line 30); means for receiving an input signal at the satellite (col. 3, line 55- col. 4, line 30); and means for programming a filter in the satellite to separate a plurality of sub-signals from the input signal based on the filter parameter (col. 3, line 55- col. 4, line 30).

Regarding claim 29, Tailor teaches means for filtering the input signal into the plurality of sub-signals as programmed based on the filter parameter (col. 3, line 55- col. 4, line 30); means for translating the plurality of sub-signals into an output signal; and means for transmitting the output signal from the satellite (col. 3, line 55- col. 4, line 30).

#### *Allowable Subject Matter*

Claims 4, 6, 7, 9-11, 15-18, 21, 22, 30 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 4, 6, 7, 10, 11, 15, 17, 18, 21, 22, 30, 31, see reasons for allowance in

office action dated 4/19/05.

Claims 26, 27 and 32 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 26, 27 and 32, see reasons for allowance in office action dated 4/19/05.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edan Orgad whose telephone number is 571-272-7884. The examiner can normally be reached on 8:00AM to 5:30PM with every other Friday off..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EDAN ORGAD  
PATENT EXAMINER/TELECOMM.

EO. 9/25/05